

# Livestock Newsletter

**OCTOBER, 1999**

## DATES TO REMEMBER

JAY PEANUT FESTIVAL ..... OCTOBER 2-3, 1999

ADULT HORSE CAMP ..... OCTOBER 14-17, 1999  
CAMP TIMPOOCHEE, NICEVILLE, (FOR INFO CALL 850-689-5850)

SUNBELT AG. EXPO..... OCTOBER 19 - 21, 1999  
MOULTRIE, GA

DEDICATION/GRAND OPENING ..... OCTOBER 21, 1999  
BEEF UNIT 10:30 AM CST MARIANNA

THE STATEWIDE GOAT CONFERENCE ..... DECEMBER 3-4, 1999  
FLORIDA A & M UNIVERSITY, TALLAHASSEE,  
(FOR MORE INFORMATION CALL 675-3107)

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# **LIVESTOCK**

## **BEEF CATTLE MANAGEMENT CALENDAR**

### **OCTOBER**

- √Plant cool season legumes.
- √Plant small grain pastures.
- √Check mineral feeder.
- √Check for external parasites, especially lice, and treat if needed.
- √Check for spittlebugs and grassloopers and treat, if needed.
- √Watch condition of cow herd; maintain adequate nutrition.
- √Isolate any additions to the herd for 30 to 60 days and observe for signs of disease; retest for brucellosis and leptospirosis.
- √Be sure you have adequate handling facilities, and that they are in good working order.

### **NOVEMBER**

- √Have soils tested.
- √Observe cows daily to detect calving difficulty.
- √Use mineral with high level of magnesium if grass tetany has been a problem in the past.
- √Check for external parasites and treat if needed.
- √Maintain adequate nutrient level for cow herd.
- √Calve in well-drained pastures.
- √Survey pastures for poisonous plants.
- √Start summarizing your annual records, both production and financial - then you will have time to make adjustments for tax purposes.
- √Re-evaluate winter feeding program and feed supplies.

## **RATIONS FOR STOCKER CALVES**

Fall is just around the corner and it is time to make plans for the winter. The cattle market has picked up and the prospects look good for the future. We should be making decisions on our feeding programs now. Traditionally we plant winter annuals (rye, oats, wheat, ryegrass or mixtures) and graze calves until next spring. This program continues to be a solid recommendation, especially in double-cropping situations where the winter annuals utilize residual fertilizer and also provide erosion control. When the weather is favorable, winter annual grazing provides relatively cheap gains. There are situations when gains can also be cheap when calves are fed mixed rations.

There will be some good opportunities this fall to purchase feeds at low prices. Corn is predicted to be low in price. That is bad news for our corn growers but is a windfall for farmers feeding cattle.

What has that got to do with stockering? Corn will not be as cheap in the southeast as it will be in Iowa but it will be reasonable. A quote today was \$2.60/bu. (Or \$93/ton). In addition, the oilseed meals (soymeal and cottonseed meal) are low in price. Cottonseed meal is approximately \$125/ton in bulk f.o.b. the crushing plant. With these prices and especially if we can utilize some by-products at good prices, the cost of gain for stockers can rival those on winter annuals.

Listed is a table of example rations for your consideration. If you have the storage, mixing equipment and feed troughs, then you need to do some cowboy math. For example, I can get soyhulls for \$75/ton, corn for \$2.60/bu, cottonseed meal for \$125/ton and gin trash for the cost of hauling (let's say \$10/ton). With those prices, ration number 8 would cost \$67.53/ton. I estimate that calves will consume 2.75% of body weight each day. Stocker calves weighing 600 lbs. would eat approximately 16.5 lbs. of feed per day which would cost \$0.58. At 2 lbs./day gain the cost would be \$0.29/lb. of gain. There are other charges to be considered such as interest, depreciation, death loss, etc. but this is a very reasonable feed cost of gain.

There are other rations which can be even cheaper. For example, using broiler litter as the source of protein and as some of the filler will cheapen the ration. Make sure you test the litter for ash content. Anything over approximately 25% ash is dirt and that litter should not be fed. The price of by-products changes with the season so be prepared to purchase your needed quantities when prices are lowest. The best time to "lock" a price on these by-products is usually in the fall.

There are a number of other by-products that could be considered for stocker rations. Their value depends on price and nutrient content. Contact your local county Extension agent if you need help in developing a ration for stockers this winter.

### **STOCKER RATIONS USING BY-PRODUCTS**

Rations (lbs/ton)											
Ingredient	1	2	3	4	5	6	7	8	9	10	11
Grain	550		750	725	990	1150	275	850	550		
Fiber			800	350	685	700	575	350		150	575
Broiler Litter	1050	1000							750		
WCS	400	400	450								
Soyhulls								700	700		
Citrus Pulp		600					950			450	875
Brewers Grain				925						1400	
Corn Gluten					325						550
CSM						150	200	100			

## NOTES:

- These rations are designed to support approximately 2.0 pounds gain/day.
- All rations should be supplemented to provide 1 day. This can be in a mineral containing 100,000 IU Vit A per pound of mineral.
- Grain is assumed to be corn: substitute 50% as wheat, milo, cookie meal (or other starch source) if economics dictate.
- Fiber source can be peanut hulls, cottonseed hulls, cotton gin trash or ground hay.
- Hay should be provided free-choice.
- Provide a mineral containing approximately 9-12% Ca and 6-9% P for rations 1-9.
- Provide a mineral containing approximately 6% Ca and 6% P for rations 10-11.

Source: University of Georgia  
Animal & Dairy Science Dept.  
August 1999

## **MARKET NEWS - ALABAMA LIVESTOCK**

WEEK ENDING: SEPTEMBER 17, 1999

Compared with last week: Slaughter cows and bulls steady to 2.00 higher; Feeder steer calves and steers mostly steady, instances 1.00 to 3.00 higher; heifer calves and heifers steady with weakness noted on heifer calves. Replacement cows steady to 25.00 per head higher.

<u>Feeder</u>	<u>Steers</u>	<u>Med./Large#1</u>	<u>Heifers</u>
	101.09-113.00	<b>300/350 lbs.</b>	85.00-95.50
	92.00-103.00	<b>350/400 lbs.</b>	79.00-87.00
	86.00-96.25	<b>400/450 lbs.</b>	75.00-82.00
	82.12-89.00	<b>450/500 lbs.</b>	73.00-82.50
	79.00-86.00	<b>500/550 lbs.</b>	72.75-79.00
	77.59-83.00	<b>550/600 lbs.</b>	71.50-76.50
	75.84-80.75	<b>600/650 lbs.</b>	67.00-75.50
	74.25-78.25	<b>650/700 lbs.</b>	66.75-72.50

### Replacement Cows

Cow (Pregnancy checked)

Small	1,	700-900 lbs.	5-8 months	300.00-400.00
Medium	1,	900-1100 lbs.	3-8 months	350.00-375.00

### Cows/Calf Pairs

Small	1,	700/900 lbs.	Cows w/calves	100-300 lbs.	425.00-500.00
Medium	1,	900/1100 lbs.	Cows w/calves	100-300 lbs.	500.00-600.00

This report is compiled at the Santa Rosa County Extension Office from sales reports of the top 15 livestock markets in Alabama.

## **FORAGES**

### **FALL FORAGE UPDATE - 1999**

The following is an update on winter forages.

#### **Recommended Cultivars (Varieties):**

##### **Legumes**

**WHITE CLOVER** -- is usually a winter annual but may act as a perennial under optimum fertility and moisture conditions. It is adapted to moist soils throughout Florida. Production and persistence can be limited by nematodes and other pests. Recommended varieties are Osceola, Louisiana S-1, Nolins Improved White, Improved Louisiana White, Regal Ladino and Arcadia.

**RED CLOVER** -- is a winter annual under Florida conditions and usually does not reseed itself. It will not tolerate flooding. Recommended varieties are Cherokee, Pennscott, Kenland, Florie, Redland, Kenstar, and Nolins. (Cherokee, developed in Florida, is highest yielding cultivar.)

**ALFALFA** -- is usually grown as a winter annual in Florida. Best use is for haylage, green chopping or hay. Requires good management and high fertility. It will not tolerate flooding or a high water table. Florida 99 alfalfa is now available. Ask for it. FL-99, with improvements in yield and nematode resistance replaces FL-77. It was developed by the Agronomy Department at the University of Florida for Florida Producers.

University of Georgia has developed two new nondormant, grazing-type, alfalfa varieties. They were released by the University of Georgia under the variety names of ABT 805 and AmeriGraze 702. Although these new varieties have not been tested extensively in Florida, they have the potential to perform better in Florida than Alfagraze. If anyone is interested in planting some alfalfa and they cannot get seed of FL-99 these would probably be the best varieties to try. Since it is not known how well these varieties will withstand Florida's insect, disease and nematode pressure; it is suggested that producers plant only limited acreage. A small acreage could be planted as a creep graze pasture for calves or as a supplement for the beef herd. ABT 805 is marketed by ABT (Agro Biotech) Seed Co., and AmeriGraze 702 is marketed by America's Alfalfa Seed Co. Although called a grazing alfalfa these varieties can also be harvested for hay.

**CRIMSON CLOVER** -- is a reseeding annual adapted to fertile well-drained soils. It has a relatively short grazing season. It may be grown in combination with ryegrass or a small grain crop. Recommended varieties are Flame, Dixie, Chief, and Tibbee.

**ARROWLEAF CLOVER** -- is an annual that is similar to crimson clover in soil adaptation, management and fertility requirements. It is mainly grown on heavier soils in Northwest Florida. It makes more growth in late spring than crimson. Recommended varieties are Yuchi and Amclo.

**LUPINE** -- is an annual adapted to well drained soils in North and West Florida. It is an excellent

cover crop. In recent years seed supply has been low, and production has been limited by disease and insects. Only sweet varieties are suitable for forage. Recommended varieties are Tifblue and Frost.

**SWEETCLOVER** -- grows on slightly drier soils than white clover. It will not tolerate flooding. It has an earlier but shorter grazing season than white clover. It should be reseeded each year. Recommended varieties are Hubam and Floranna.

**AUSTRIAN WINTER PEAS (Common)** -- This annual legume is best suited to well-drained soils with a high clay content.

**VETCH** -- grows best on well-drained, fertile, loamy soils. It has not generally been highly productive in Florida. Recommended varieties are Vantage, Nova II, Cahaba White, Hairy and Common.

### **Grasses**

**Rye** -- Rye is the small grain most widely used for winter grazing. Rye is more cold tolerant than oats and generally produces more forage than either oats or wheat. Do not plant too early; wait until cool weather begins. Normally rye from northern states will produce little forage in late fall or early winter and will usually be severely damaged by leaf rust. Recommended varieties are Florida 401 and Florida Black for late fall and early winter grazing. Wrens 96, Florida 402, Wrens Abruzzi, Elbon, Bonel, Oklon, Maton, Pennington Wintergraze 70, Gurley Grazer 2000, and Grazemaster for winter and spring grazing. (Wrens 96, a new cultivar release, is a good seed producer in Florida. Maton, Elbon, Bonel, or Oklon are very poor seed producers.)

**OATS** -- May be planted and grazed earlier than rye. Very palatable, but susceptible to freeze injury. Recommended varieties are Florida 502, Florida 501, and Coker 820 for early season grazing. Chapman, Harrison, Terral Secretariat LA495, Coker 227, Ozark, AR-County Seeds 833, 811, and LA604, for winter and spring grazing. All varieties except Harrison, Chapman, LA604, and Terral Secretariat LA495 have suffered losses due to crown rust in recent years.

**WHEAT** -- Similar to oats in yield and palatability. Less susceptible to freeze injury than oats. Wheat should not be planted for grazing before October 15. Plant only Hessian fly resistant varieties for grazing. Recommended varieties for grazing are Florida 304, Pioneer 2684, Coker 9835, Coker 9663, Coker 9134, GA-Gore, GA-Dozier.

**TRITICALE** -- is a small grain similar to wheat. Some varieties have been developed to be used strictly for grazing. These are Thomas, Morrison and Council.

**RYEGRASS** -- Ryegrass is a valuable winter and spring grazing crop for use on flatwoods soils or the heavier sandy loam soils in Northwest Florida. Ryegrass may be seeded alone or with a small grain on prepared seedbed or overseeded onto permanent grass pastures. Seeding ryegrass with a small grain crop lengthens the grazing season. Recommended varieties are Surrey, Jackson, Florida 80, Magnolia, Rio, Gulf, Southern Star, Tetrablend 444, Big Daddy, TAM 90, and Rustmaster. (Other new varieties may be suitable but have not been tested in Florida.)

**TALL FESCUE** -- Fescue may be useful in a cow/calf operation at certain locations in North

Florida. Gains are not adequate for rapidly growing stockers. It should be planted on clay soils or on flatwood soils that remain moist throughout the year. Plant from November 1 to December 15 period on bermudagrass or bahiagrass. Georgia 5 is the only variety recommended in Florida.

### **Most common problems that occur with fall season planting:**

1. Planting before the summer grass is dormant. Tifton 9 bahiagrass grows longer into the Fall than Argentine. Even when both grasses are beginning to go dormant, they are still actively taking up fertilizer and moisture and can compete with newly planted winter grazing for any available moisture. Most stand losses that I saw last year were attributed to competition by the summer perennial grasses for soil moisture. In over seeded situations, a later planting might be necessary if we have a mild Fall.
2. For best early season winter forage growth, the seed should be planted on prepared land. Open land for winter grazing could be seeded with crabgrass in the summer. This will give full year utilization of the land, while allowing for early winter pasture. Crabgrass is an excellent forage. If cut for hay, it should be wrapped or stored, since it deteriorates quickly. The majority of its growth is over at the end of the summer. Allow it to reseed, then graze, hay or mow closely, then no-till or broadcast winter forages. Cultipack.
3. Remind producers that one of the cheapest insurances for fall season production is LIME. The pH needs to be over 6.0 and above 6.5 for clovers and most legumes (Near 7.0 for alfalfa).
4. Wait until the fall drought is over. **Soil moisture...got to have it**, unless you are on an irrigated site. Producers who do have irrigated crop land might want to consider planting a high quality winter forage for silage, hay or grazing. Many dairies will buy ryegrass or ryegrass/clover hay.
5. Cultipack, or drag over winter forages to get good soil-moisture contact with seed. This is important for both prepared land or no-till situations.
6. Not every winter forage will work for every situation. Deep sands just don't support good forage production. Producers on sandy sites may have to rely on supplements and hay. There are no magic bullets for poor land. Sorry. The clovers do generally require decent moisture. Specific site selection for winter grazing might be an option if a producer has variable soils and some low lands. It is simply a matter of common sense.

**Planting Dates and Rates:**

Seed-Propagated Crop <sup>1</sup>	Planting Dates <sup>2</sup>	Seeding Rates (lbs/acre Brdcast)	Seeding depth (in.)
Alfalfa	Oct. 1 - Nov. 15	12 - 20	1/4-1/2
Clover, Arrowleaf	Oct. 1 - Nov. 15	8 -10	0-1/2
Clover, Berseem	Oct. 1 - Nov. 15	16 - 20	1/4-1/2
Clover, Crimson	Oct. 1 - Nov. 15	20 - 26	1/4-1/2
Clover, Red	Oct. 1 - Nov. 15	6 - 12	1/4-1/2
Clover, Subterranean	Oct. 1 - Nov. 15	18 - 22	1/4-1/2
Clover, White	Oct. 1 - Nov. 15	3 - 4	0-1/4
Fescue, Tall	Nov. 1 - Dec. 15	16 - 20	1/4-1/2
Oats for forage	Sep. 15 - Nov. 15	96 - 128 (3-4 bu.)	1-2
Pea, Austrian Winter	Oct. 1 - Nov. 15	45 - 60	½-1
Rye for forage	Oct. 15 - Nov. 15	84 - 112 (1.5-2 bu.)	1-2
Ryegrass, Italian (annual)	Oct. 1- Nov. 15	20 - 30	0-1/2
Sweetclover	Oct. 1 - Nov.15	12 - 15	1/4-1/2
Triticale for forage	Oct. 15- Nov. 15	84 - 112	1-2
Turnips	Oct. 1 - Nov. 15	5 - 6	1/4-1/2
Vetch, hairy	Oct. 1 - Nov. 15	20 - 30	1-2
Wheat for forage	Oct. 15 - Nov. 15	90 - 120 (1.5-2 bu.)	1-2

<sup>1</sup>Always check seed quality. Seed germination should be 80 percent or higher for best results.

<sup>2</sup>Planting date range: In general cool season forage crops in North Florida can be planted in the early part of the planting date range and in South Florida the latter part of the planting date range.

**WATER FOR HORSES**

Have you drank eight glasses of water, today? It is important for you to get enough water, but do not forget about your horses. Water is a nutrient, just like carbohydrates, fats, protein, vitamins and minerals. But, it is often neglected because many individuals do not understand its importance.



Your horse can live longer without feed than it can without water. In fact, water is the major component of the horse's body. The horse's body is 65-72 percent water on a fat-free basis. So a 1,200-pound horse contains a whopping 98 gallons of water. That is why water is so important.

Water intake is related to what a horse eats. The horse needs about 1.5 quarts of water per pound of dry feed. If a 1,200 pound horse eats 18 pounds of feed, it needs about 6 gallons of water. Normally, horses drink 6-10 gallons of water daily. High intakes of protein or mineral result in horses drinking more water. But, other factors, such as temperature, humidity, lactation and performance also influence water intake. When the temperature and humidity increase, horses drink more.

Lactating broodmares may drink 50-70 percent more water. But the most important factor is the level of performance. Horses in intense performance in hot weather may lose as much as 8 gallons of sweat daily. You should be concerned if your horse reduces the amount of water it normally drinks in hot weather, especially if it is in moderate or intense performance.

You can measure water loss by weight loss in horses. Horses can lose 5-10 percent of their body weight during strenuous competition. This weight loss is mostly sweat, but urine and feces also contribute to water loss. Foals need water in addition to what they receive from their dam's milk. Two month-old foals will drink about 1.5 gallons of water daily. Make sure your horse has an adequate supply of clean, fresh water at all times, especially in the hot summer, the heights of the horse show season. At this time of year, check natural water supplies if your horse is on pasture. Water troughs or tanks used for outside horses should also be inspected and cleaned periodically and contain fresh, clean water at all times.

When it is hot and humid, stabled horses may need to be watered several times daily if water is provided by bucket. Place two buckets in each stall if you can't water them at midday. Periodically wash these buckets thoroughly. Some horses have a habit of dropping feed in their water buckets. If you use automatic waterers, check to be sure they are clean and functioning properly. Horses that are hot and sweaty after being ridden should not be allowed to drink all the water they want. But, as you cool them out by walking, it is okay to allow them to have a few swallows of water. But, keep walking them until they are completely cooled-out.

Water quality is also important to your horses and may be more critical in hot weather. As natural water sources such as streams and ponds dry-up or become very low, water availability and quality can be a problem. The National Research Council in 1989 advised limits of certain minerals in water for horses: arsenic, 0.2 mg/liter; copper, 0.5 mg/liter, fluoride, 2 mg/liter, lead 0.1 mg/liter and nitrate nitrogen, 100 mg/liter. It has also been suggested that water contain less than 180 mg of calcium, 0.1 mg of iron, 0.5 mg of manganese and 0.1 mg of hydrogen sulfide per liter to prevent cleaning problems. Hard water could interfere with cleaning agents, which is important on breeding farms and training stables.

Water pH may also influence water intake. A pH of between 6.5 and 8.5 is considered normal. Below or above this range could cause taste variation in horses. Horses may be sensitive to water contamination. One story related that two horses suddenly and dramatically reduced their water intake. When tested, the water supply had been contaminated. The water source for these horses also supplied three families, who noted no difference in the taste or quality of the water. A water treatment system resulted in good, quality water again and a return to normal water intake by these horses.

If you have your own water system, test it annually. Test the pH, total dissolved solids, total coliform bacteria, fecal coliform bacteria, total plate count and noted minerals. Keep these records from year to year in case your water becomes contaminated. You can then prove that outside activities may have contaminated your water supply.

Source: Animal Science Newsletter  
March 1999

## **AQUACULTURE**

### **POND LIMING: FALL IS THE TIME**

Many pond waters in the Florida panhandle tend to be slightly acidic and usually will require liming to raise the pH and alkalinity. Ponds in some areas are supplied by water from limestone aquifers and rarely require liming. Since pH naturally fluctuates during the day because of the photosynthetic activity of phytoplankton or algae, alkalinity is a better indicator of liming requirements than pH. Measuring alkalinity is a simple procedure and many inexpensive test kits are available. Alkalinity refers to the concentration of bases in water expressed as parts per million (ppm) equivalent of calcium carbonate, or more simply, the buffering capacity of a water to resist pH change. Ponds with a low alkalinity (less than 35 ppm) tend to have wide daily pH fluctuations, whereas ponds with higher alkalinities have more stable pH levels and are generally more productive.

In recreational bass and bream ponds, the alkalinity of the water is important since the higher the alkalinity the greater the availability of nutrients to phytoplankton. Phytoplankton is essential since it is the base of the food chain and is a good source for planktonic animals which are food for insects which bream feed on and so on...Increasing the alkalinity is accomplished by adding agricultural limestone (calcium carbonate) or dolomite (magnesium and calcium carbonate.) Waters of low alkalinity generally require 1 -2 tons of limestone per surface acre. Ponds with very low pH and alkalinity such as tannic acid water may require greater amounts.

Limestone needs to be spread over the entire surface since it reacts with the pond bottom to neutralize pH. This can be accomplished by placing limestone on a plywood sheet on a flat bottom boat and either shoveling or washing the limestone off into the pond. It can take a few months to notice the full benefit of limestone. Be careful not to use hydrated lime, since it can cause a drastic pH change and kill fish.

## **POND STOCKING**

Bluegill and catfish are normally stocked in the fall, and bass are stocked the following spring. Stocking bluegill in the fall will allow them to spawn, providing the small bass with a forage base. Catfish are stocked in the fall to allow them to grow large enough so that the bass will not be able to eat them. Bass are stocked in the spring because they are highly cannibalistic, and if left in the hatchery ponds in large numbers throughout the summer, they would eat each other, thereby reducing the number of fingerlings that would be available for stocking. Contact your County Extension Service office for a list of local fish suppliers.

Stocking a pond in mid-summer should be avoided. High water temperatures and low dissolved oxygen may weaken fish being transported. Sudden temperature changes can cause fish to go into shock and die.

When stocking, fish should be “tempered” (slowly acclimated to any significant changes in water temperature or chemistry), when preparing to stock them into a new environment. Proper tempering requires at least 20 minutes of gradual adjustment for every 10 - degree Fahrenheit difference in water temperature. If no thermometer is available, temperature difference between the two environments should be adjusted gradually until no difference can be felt using your hand. If fish are received packed in plastic bags with oxygen, float the bags in the receiving water without opening them until the fish are temperature acclimated. Opening the bags allows the oxygen to escape, and the fish must be quickly released. If fish are being unloaded from a hauling tank, gradually mix the new water into the tank until temperatures are equalized.

Fish which are properly handled and stocked should remain active and swim off quickly into deeper water after release. Fish which are stressed from transport or improper acclimation often sink to the bottom or swim weakly. Mortalities resulting from handling and stocking stress will usually occur in a matter of hours to several days following release. Often times, excessive stress on fish leads to disease outbreaks and later mortality which may not occur until several days after stocking.

A reputable fish fingerling supplier will be concerned that the buyer is pleased with the fish he receives. In most cases if a problem arises with the fish, the supplier will replace them if the loss was not due to negligence on the part of the buyer. Usually the seller will arrange or recommend how the fish should be transported and provide instructions on the proper method of stocking.

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Extension programs are open to all people without regard to race, color, sex, age, handicap or national origin.

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The use of trade names in this publication is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product names and does not signify that they are approved to the exclusion of others.

Sincerely:

John Atkins  
Extension Agent III  
Agriculture/Livestock  
Santa Rosa County